

Legislative Audit Division

State of Montana



Report to the Legislature

November 2000

Performance Audit

University Facilities Management (Physical Plants)

**MSU-Bozeman
MSU-Northern
UM-Missoula
UM-Western**

This report contains two recommendations for improving deferred maintenance reduction strategies of the Montana University System. The recommendations include Board of Regents establishment of a comprehensive facilities funding plan and legislative consideration of increasing Long Range Building Program funding for deferred maintenance projects.

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Members of the performance audit staff hold degrees in disciplines appropriate to the audit process. Areas of expertise include business and public administration, statistics, economics, accounting, logistics, computer science, and engineering.

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November 2000

The Legislative Audit Committee
of the Montana State Legislature:

We conducted a performance audit of the Montana University System facilities management operations. This report contains recommendations for improving deferred maintenance reduction strategies. The recommendations include Board of Regents' establishment of a comprehensive facilities funding plan and legislative consideration of increasing Long Range Building Program funding for deferred maintenance projects.

We wish to express our appreciation to the management and staff of the units of Montana State University, The University of Montana, and the Office of the Commissioner of Higher Education for their assistance and cooperation during the audit.

Respectfully submitted,

(Signature on File)

Scott A. Seacat
Legislative Auditor

Legislative Audit Division

Performance Audit

University Facilities Management (Physical Plants)

MSU-Bozeman

MSU-Northern

UM-Missoula

UM-Western

Members of the audit staff involved in this audit were Mike Wingard and Kris Wilkinson.

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Introduction

The General Appropriations Act of 1999 (House Bill 2) required the Legislative Auditor to conduct at least three performance audits of the campus units of the Montana University System physical plant and grounds and maintenance operations during the 2001 biennium. The Legislative Audit Committee selected Montana State University - Bozeman, The University of Montana – Missoula, Montana State University – Northern, and The University of Montana – Western as the campus units to be reviewed.

We concluded, based on audit work completed at the four audited units:

- < There is a significant amount of deferred maintenance (DM) at each of the units we audited;
- < The inventories used to assess the liabilities are incomplete and there is not a consistent or coordinated approach to the inventory process among the units;
- < DM liability reduction strategies should be tied to budget and Long Range Building Program (LRBP) requests; and
- < Despite the need to improve deferred maintenance identification and reduction strategies, the units' facilities management organizations attempt to showcase the campuses in the best possible light.

A number of factors are contributing to the campus deferred maintenance liabilities. Some of these factors include budgetary limitations, campus-level priority, balancing building maintenance with funding other functions within facilities management such as utilities, construction of new buildings, and a lack of major maintenance funding. These factors have resulted in deferred maintenance liabilities of over \$89 million dollars at the four audited units.

Report Summary

Addressing Growing Deferred Maintenance Liabilities

The Board of Regents has general control and supervision of the campus units. The Office of the Commissioner of Higher Education is responsible for providing technical assistance and staff support to the Board and the units of the university system. The legislature, the Board, the Commissioner's office and campus budgetary committees are all involved in budgetary decisions which affect the amount of resources available to reduce DM liabilities. If the legislature and other applicable parties wish to fully identify and begin to systematically address the growing DM liability, strategies and specific fund resources will need to be developed.

We believe the Board and the Commissioner's office should more formally and comprehensively examine the identified deferred maintenance liabilities on overall campus operations. The Association of Higher Education Facilities Officers, known by the acronym APPA, recommends development of a comprehensive facilities funding plan. Such a plan is needed to improve and protect state-owned resources. The plan should include:

- < Comprehensive inventory processes which are consistent and coordinated throughout the system to ensure accurate and complete information on DM liabilities.
- < Requirements for facilities management budgets and LRBP requests to incorporate DM reduction strategies as part of prioritization.
- < Requirements for ensuring facilities management reporting procedures allow for unit-to-unit comparisons and system-wide measurements of DM reduction strategies and efforts.

As part of this plan, the Board should ensure:

- < Analysis of the balance between funding instructional programs and physical plant operations and maintenance programs;
- < Subsequent funding requests for major maintenance;
- < New construction and capital renewal projects should be addressed; and

Long Range Building Program Role in Prevention and Reduction of Deferred Maintenance Liabilities

- < The Board should increase their examination of the units' operating and maintenance budget and Long Range Building Program (LRBP) requests and subsequent unit allocation and reallocation of funds to ensure the funding plan is followed.

While funding apportionment is the responsibility of the Board, the Commissioner's office, and the campuses; the legislature's role is still to determine the amount of state funding appropriated to the Montana University System each biennium. The units rely on the LRBP as the primary funding mechanism to address deferred maintenance liabilities. The legislature should consider whether the current LRBP is still working as intended. Originally conceived to provide maintenance funds to protect state buildings, it appears the emphasis has switched to construction of new buildings. Possible options for increasing the emphasis on building maintenance as well as reducing the state DM liability include increase funding for the cash portion of the LRBP and utilize the bonding program to reduce or prevent an increase in the deferred maintenance liabilities of state buildings.

Our findings suggest an increased and consistent funding stream will be necessary to fully address identified DM liabilities. The legislature should examine the LRBP and establish an increased and consistent funding source to address deferred maintenance liabilities.

Chapter I - Introduction

Introduction

The General Appropriations Act of 1999 (House Bill 2) required the Legislative Auditor to conduct at least three performance audits of the campus units of the Montana University System physical plant and grounds and maintenance operations during the 2001 biennium. The Montana University System is made up of two universities, Montana State University and The University of Montana and six associated colleges. The campuses or units are located in Bozeman, Billings, Havre, Great Falls, Missoula, Butte, Dillon, and Helena. The Board of Regents has general control and supervision of the units. The Office of the Commissioner of Higher Education is responsible for providing technical assistance and staff support to the Board and the units of the university system. Duties include academic planning and curriculum review, budgetary planning and control, legal services, and labor negotiations.

House Bill 2 required the Legislative Audit Committee to select the units to be reviewed based on comments from campus representatives, the Commissioner of Higher Education, and the Architecture and Engineering Division of the Department of Administration. Maintenance needs, current maintenance and physical plant expenditures, and other information considered relevant by the committee were used to make the selection. On December 16, 1999, the Legislative Audit Committee selected Montana State University - Bozeman (MSU-Bozeman), The University of Montana - Missoula (UM-Missoula), Montana State University - Northern (MSU-Northern), and The University of Montana - Western (UM-Western).

Audit Objectives

To address provisions in House Bill 2 and to answer several questions pertinent to legislative interest, the following audit objectives were considered as part of the University Facilities Management Performance Audit scope:

1. What are the levels and types of effort given by the university units to:
 - < Daily and ongoing maintenance responsibilities?
 - < Preventive maintenance?

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- < Deferred maintenance?
- 2. Have the operations and maintenance budgets of the university units been adversely impacted by:
 - < University unit administration reallocation of their budgets to other sources such as instruction?
 - < Continued requests/expansion of physical plant responsibilities via construction of new buildings?
- 3. What role does the Long Range Building Program (LRBP) play in the prevention and/or reduction of university unit deferred maintenance liabilities and how do the units use the LRBP to protect their physical plant?

Audit Scope and Methodologies

Audit work focused on university building operations and maintenance performed by facilities management (often termed physical plants) programs at each of the four campuses. While all buildings on the campuses can be considered assets, with corresponding liabilities, of the Montana University System and hence the State of Montana, for purposes of our audit we included only those buildings whose construction was approved and paid for through the legislative appropriation process. We titled these “state-owned buildings” for purposes of this report. We did not include buildings approved for construction by the Board of Regents for auxiliary operations, such as dormitories, food service operations or student union buildings. Auxiliary building operations and maintenance costs are funded through student fees or other revenues and not through the legislative process.

To determine the levels and types of effort given by university units to maintenance responsibilities, we reviewed facility management programs on each campus. We used the Association of Higher Education Facilities Officers, known by the acronym APPA, guidelines as criteria. We conducted staff interviews, reviewed maintenance budgets, and reviewed work order systems outlining daily and ongoing maintenance efforts. We reviewed preventive maintenance programs and interviewed staff concerning the amount and types of maintenance conducted as part of preventive programs. We reviewed the process used to identify deferred maintenance

issues. As part of the review we selected a sample of identified building deficiencies or deferred maintenance items in several buildings and confirmed their existence and severity. We accompanied staff on building reviews, observing processes they followed to identify deferred maintenance issues and related costs. We compared these processes with recommended processes outlined by APPA.

We compared budgetary amounts included as part of the lump-sum appropriation allocated by the legislature for facilities management operations to amounts included in Board of Regents' approved operating budgets and to amounts included in campus budgets. The comparison was used to determine if units' facilities management operations were impacted by reallocation of their budgets to other programs. We interviewed unit budget directors and facilities management operations staff regarding the budgetary process.

To determine how amounts allocated to facilities management operations were used, we reviewed actual expenditures for the last four years. Part of the review included confirming the units followed College and University Business Administration (CUBA) guidelines related to accounting consistency as required by state law. We reviewed operations and maintenance expenditures funded using alternative funding sources including excess millage, reverted appropriations, and plant funds. We also reviewed campus compliance with legislatively mandated alternative funding for operations and maintenance costs on selected buildings. We reviewed facilities management charges to other campus areas to ensure the amounts included all recoverable expenditures.

We conducted interviews and reviewed documentation relating to staffing of facilities management operations over the last 10 years to determine if staff increased as responsibilities increased due to newly constructed buildings.

To determine the role of the Long Range Building Program in the prevention or reduction of university unit deferred maintenance liabilities, we reviewed unit LRBP requests for each of the units for

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the last two biennia. We interviewed facilities management directors to determine how they use the LRBP process to help reduce deferred maintenance liabilities and how they prioritized their requests.

While we examined information from the work order systems at each campus, we did not test controls over these systems. We also examined general information about both designated and auxiliary fund expenditures and revenues. We did not extensively test expenditures or revenues in either fund.

Associated Audit Work

Our audit work identified two areas we believed would benefit from additional audit work: utility costs for state government and maintenance of other state buildings outside the university system. Our office has completed audit work in the area of maintenance of other state buildings and issued a report, No. 00P-18, Agency Facility Management, discussing this work.

Compliance

We identified a compliance issue with section, 17-1-102(4), MCA, requiring university units to accurately record accounting transactions. This is discussed on page 29 of Chapter III.

Issues for Management Consideration

During the course of this audit, we found several issues on the individual campuses which we discussed with the facility management directors. These issues are not the subject of recommendations in this report; however, they could improve facilities management operations at the four audited units. The issues include:

- < Developing consistent accounting treatment of the costs associated with President/Chancellor's residences throughout the system.
- < Clarifying lease agreements with other agencies/individuals to outline responsibilities for maintenance and repair of the leased facilities and developing mechanisms for assessing damages from lease or rental of university facilities.
- < Ensuring state funding is not used to pay utilities for auxiliary operations such as student union buildings and athletic facilities.

- < Establishing funding for buildings with alternative requirements for operations and maintenance costs.

We will review the university units' progress towards implementing these improvements during our follow-up on the recommendations in this audit report.

Chapter II - Background

Introduction

According to studies noted in the APPA Facilities Management Manual, the development of higher education has evolved through three phases: formation, expansion, and maturity. During formation of institutions, facilities issues consisted of little more than finding property; building or buying an institution's first buildings; and hiring the staff, tradespeople, or contractors to operate and maintain these small college campuses. Fueled by the GI Bill and the "baby boom," colleges and universities dramatically expanded. Between 1950 and 1975, higher education experienced a building boom in the United States, with building area more than quadrupling. In this period, entire new campus planning and building departments were created. Positions such as campus planner and university architect emerged to manage the expansion. Original campus master plans were discarded, new concepts of site development and building design were enlisted, and campuses as they exist today were constructed.

Although APPA believes higher education has gone from the expansion phase into the maturity phase, significant forces are driving the trend to more sophisticated facilities management practices. These forces are technology, regulation, revenues and costs, and capital rationing.

Technology - Technological change has affected the way facilities are designed, built, and maintained. Phrases such as computer-aided design, smart building, local area network, and fiber optics have been integrated into facilities management discussions.

Regulation - Laws and regulations have been enacted to protect workers, the public, the environment, etc. These regulations affect facilities design, construction, and operation.

Revenues and Costs - Total costs of building ownership are increasing. Revenue is needed to replace aging facilities at a time when costs for operating and maintaining those facilities are also increasing.

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Capital Rationing - Technology, regulation, and revenues are creating a need for substantial reinvestment in facilities. However, this increasing demand for capital is curtailed by a limited supply of funds, caused by competing interests.

Facility Appearance Impacts Student Populations

Several studies referenced by APPA in their Facilities Management Manual have established a relationship between facility quality and customers' perceptions of quality of educational outcomes. In a 1987 study, 62 percent of the students surveyed indicated the appearance of buildings and grounds was the most influential factor during a campus visit. What do students look for in terms of college facilities? First, most students (or their parents) expect a campus to be clean, litter free, and sanitary. Second, facilities should be reasonably capable of functioning for their intended purpose. Third, a college must have a full array of reasonably equipped facilities to support its courses of study and meet everyday student needs. Most importantly, the condition of facilities and campus appearance must convey the impression resources are wisely and prudently used.

Facilities Management Operations

Our review of the audited units' facilities management operations indicates there are two primary responsibilities for facility managers and their staff: facility planning, design, and construction; and facilities operation and maintenance. The level and type of involvement in each of these responsibilities is dependent upon several factors including size of the unit and amount of building activity. For example, MSU-Bozeman and UM-Missoula have larger staffs and resources than MSU-Northern and UM-Western.

Facilities Planning, Design, and Construction

The principal functions in this area of responsibility include master planning, capital program planning, architectural and engineering services, and construction contract administration. Both MSU-Bozeman and UM-Missoula have personnel assigned to these responsibilities. Neither MSU-Northern nor UM-Western have personnel specifically assigned to this area of responsibility. Either personnel assigned to other campus areas are used when a new project is undertaken or, more commonly, facilities managers seek assistance from the larger campuses.

Facilities Operations and Maintenance

This area of responsibility includes the operating and maintenance components of a facilities management organization. The following describes the major functions in this area.

Utilities Services (Heating Plant) - This organizational component is responsible for operation of utility plants and systems, including heating plants. Specific responsibilities generally include maintenance and repair of the distribution systems, energy management and control systems, and heating, ventilation, and air conditioning operation. The type and number of staff assigned to this function is primarily based on campus size and number of systems that must be maintained.

Facilities Maintenance - This component of the organization is responsible for performance of scheduled maintenance, continuing maintenance, unscheduled maintenance, and repair of facilities and facility systems. Typically this function includes carpenters, electricians, plumbers, and painters. Again, the number and type of staff is dependent on unit size. The facilities management organizations often contract for services outside the expertise of their existing personnel or to balance staff workload.

Custodial Services and Grounds Maintenance - At all four of the units, these two areas of responsibility have been consolidated from a supervisory standpoint. Specifically this function is responsible for interior cleaning of buildings and outside maintenance, such as landscaping, snow removal, etc. Their responsibilities can also include solid waste collection, recycling, and general labor support. The number and type of custodial and grounds maintenance personnel is dependent upon the unit. All of the units employ student workers in one fashion or another in these areas of responsibility.

Transportation - All four of the facilities management organizations are responsible for the units' motor pool operations.

Auxiliary Services - Each of the units have student housing, student union buildings, food services, athletic facilities, etc., which were

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essentially built with and financed by student fees. Each of the units' facilities management organizations perform some level of work for the auxiliaries. At MSU-Northern and UM-Western, nearly all auxiliary-related facilities maintenance and grounds maintenance functions are performed by the facilities management organizations. At MSU-Bozeman and UM-Missoula, the type and level of auxiliary-related work varies.

Other Services - Other services assigned to facilities management organizations are unit specific. For example, UM-Western, MSU-Northern, and UM-Missoula all have some mail-related services included in the facilities management areas of responsibility. MSU-Bozeman has separate organizational entities to administer these functions.

The following chart shows the number and type of facilities management personnel at each of the units.

Table 1
Breakdown of Unit Facilities Management Personnel FTE
(As of Fiscal Year 1998-99)

	MSU-Bozeman	MSU-Northern	UM-Missoula	UM-Western
Administration	16.75	2	11.33	1.5
Planning & Architectural	8	0	13.50	0
Custodians	60	12	61.58	3.28
Building Maintenance	6	1	10	0
Landscape & Grounds Maintenance	9	5.5	10.99	2.75
Heating Plant/HVAC	16	0	12	4
Campus Stores	3	0	3.83	0.5
Motor Pool	2	0	4.33	0.13
Mechanical Shop/Tool Room	2	0	1.5	0
Engineering	3	0	0	0
Laborers	0	0	9*	0
Electricians	6	0	8	0.75
Plumbers	5	1	6.33	1
Carpenters	11	2	7.33	2
Painters	4	2	8	0
Estimator	1	0	0	0
Mailroom/Logistics	0	0.5	6.72	0.5
Security	0	3	0	0.33
Hazardous/Waste Management	4.5	0	2	0
Totals	157.25 FTE	29.00 FTE	176.44 FTE	16.74 FTE

* General laborers are included as custodians, building maintenance, or landscape and grounds at the other units.

Source: Compiled by the Legislative Audit Division from university unit files.

Types of Building Maintenance

In the previous section we discussed facilities maintenance in general. In this section, we describe the specific types of maintenance used to protect and maintain a college or university physical plant by the facilities management organizations.

MSU-Bozeman's Office of Facilities Services has developed various maintenance definitions which it uses as part of its budget development and monitoring process. The other units do not necessarily use these definitions. While these definitions can vary between facilities management organizations, we have used them to generally describe the most significant state-funded maintenance activities of the four university units we audited.

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Building Maintenance (Daily/Ongoing Maintenance) - This is the normal, day-to-day maintenance of building components, such as exterior walls, windows, window coverings, roofs, doors, finishes, plumbing, cooling, and electrical systems which may break down. All units have work order systems which allow for review and prioritization of noted maintenance issues. MSU-Bozeman has defined “building maintenance” as problems which cost less than \$1,000 per work order. This category makes up the bulk of the daily maintenance activities of facilities management personnel at all of the units.

Scheduled Maintenance - This is normal, schedule-able maintenance of building components such as exterior walls, windows, roofs, doors, finishes, plumbing, cooling, and electrical systems. This type of maintenance activity is typically associated with painting, carpet replacement, some types of parts replacement in mechanical systems, etc. While MSU-Bozeman is the only one of the units which has a specific scheduled maintenance budget category, the other units do conduct some scheduled maintenance as part of their overall building maintenance or preventive maintenance activities.

Preventive Maintenance - This maintenance activity is also for regularly scheduled maintenance inspections and tasks. Preventive maintenance is performed to increase the life of facilities and equipment and reduce unscheduled down time and breakdown maintenance. All of the units conduct some level and type of preventive maintenance.

Major Maintenance - This is larger, more complex maintenance activity involving long-term repairs and replacement of major campus and building components. Most often, projects have a cost greater than \$1,000 and may require resources beyond in-house capabilities and expertise. MSU-Bozeman also considers many of the projects which were deferred due to funding limitations to be part of its major maintenance activities.

The units in general may address deferred maintenance as part of their overall major maintenance activities. The APPA Facilities Management Manual defines deferred maintenance as maintenance projects that were not included in the maintenance process because of a perceived lower priority status than those funded within available funding. There is a more detailed discussion of deferred maintenance and its overall impacts in Chapter III.

Facilities Management Funding

As of June 30, 1999, all the buildings of the four audited campuses were valued in excess of \$390,000,000 on their financial statements. The facilities management organizations which are charged with operating and maintaining these assets are funded from a variety of sources. The following sections discuss university unit and facilities management funding.

Allocation of Montana University System Funds

Beginning with the 1997 biennium, the legislature has appropriated a single biennial lump sum to the Board of Regents (Board) for the combined operations of the Montana University System and the Office of the Commissioner of Higher Education. Appropriated amounts are comprised of General Fund and millage, the state portion of funding for the university system. These funds are considered current unrestricted funds. The use of a single lump-sum appropriation allows the Board to manage the biennial appropriation according to board policy by prioritizing needs and provides for a proportionate distribution to the campuses. It also allows flexibility among the units as well as among on-campus programs. In addition, the Board can allocate funds between fiscal years. One condition associated with the legislative appropriation relates to student enrollment projections. If actual student enrollment numbers over the biennium are less than the number projected when calculating the lump-sum appropriation, the units must return the difference to the state General Fund. This can affect facility management funding. We discuss the effect of this requirement in Chapter IV.

The current funding mechanism charges the Board with the responsibility of setting budgetary policy and priorities for each of the university units. The Board allocates appropriations to the individual units according to board policy. Current board policy

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allocates the funds using a cost of education model that takes into account various factors including:

- < Resident enrollments;
- < Institutional characteristics such as program arrays, level of instruction, and size; and
- < Peer institution characteristics and resources.

Facilities Management Funding Allocations

Funding for operating and maintaining state-owned buildings is included as part of the lump-sum legislative appropriation. The receipt and expenditure of this funding is included as part of the unit's general operating fund. The operations and maintenance portion of the lump sum is calculated using an incremental amount based on expenditures in the base year with adjustments reflecting one-time costs, inflationary changes, and pay plan increases approved by the legislature.

The subsequent distribution of lump-sum funding by the Board to the campuses also uses an incremental approach for allocating operations and maintenance budgets of the physical plant. These allocations are also based on expenditures in the base year for operations and maintenance of plant. Once funding is allocated to the unit, the funding amounts for these services are then based on allocations made by campus budgetary committees. These budgetary allocations may or may not be based on the amounts included in the legislative lump-sum appropriation or the Board's distribution to the campus.

In addition to receiving state funding, the facilities management operations generate revenues by providing services to other campus programs, such as auxiliaries. These revenues and associated expenditures are recorded as designated fund activities. To recover the costs of providing the services, facilities management operations "recharge" the other campus programs. Recharge amounts are generally based on the total cost of providing the services.

Plant funds are also used to help finance maintenance activities. Plant fund sources include current unrestricted funds, student fees,

land grant income, revenue bond proceeds, and private capital contributions. Private capital contributions are most frequently used for construction of new buildings. The majority of revenue bond proceeds are used for construction and renovation of auxiliary buildings, although in recent years some revenue bonds repaid with student-approved building fees have been used to remodel and renovate classrooms and laboratories in various state-owned buildings.

The legislature permanently approved the use of reverted appropriations for operations and maintenance of plant and/or equipment purchases in fiscal year 1994-95. We noted that while some funding was used on deferred maintenance projects, the majority of the reversions were used for campus-wide equipment purchases, such as computers. In addition, the university units received excess millage during the last biennium. A portion of the excess millage was used for operations and maintenance costs.

Facilities Management Fund Expenditures

Facilities management operational expenditures include administration of facilities management operations, building maintenance, custodial services, utilities, landscape and grounds maintenance, repairs, and minor renovations. The following chart shows the various functions and combined percentages of where the approximately \$50,110,785 in general operating funds was spent by the four audited campuses in fiscal years 1996-97 through 1998-99.

Chapter II - Background

Table 2
Combined Percentages of General Operating Funds Spent
On Facilities Management Functions
Fiscal Years 1996-97 through 1998-99
By All Four Audited Units

	1996-97	1997-98	1998-99
Utilities	33.76 %	34.49 %	32.65 %
Building Maintenance	25.74 %	22.20 %	23.70 %
Custodial	17.50 %	19.84 %	19.05 %
Landscape & Grounds	5.25 %	6.05 %	6.11 %
Administration	5.04 %	5.13 %	4.75 %
Rentals	3.51 %	3.44 %	5.19 %
Facilities Planning	3.12 %	3.21 %	3.03 %
Hazardous Waste/Safety	2.68 %	2.38 %	2.44 %
Insurance	1.49 %	1.48 %	1.48 %
Other (Mail, Security, Etc.)	1.90 %	1.78 %	1.60 %
Total	100 %	100 %	100 %

Source: Compiled by the Legislative Audit Division from SBAS.

As presently allocated by the units, approximately 75 percent of general operating funds are used for paying utilities, custodial, insurance, administration, etc. This leaves about 25 percent for building maintenance expenditures.

Long Range Building Program (LRBP)

In addition to current unrestricted funds, biennially the units can submit proposals/requests for LRBP funds. The LRBP was formed in 1963 for the purpose of funding construction, alteration, repairs, and continued maintenance of state-owned property. The program was introduced to provide a single, comprehensive, and prioritized plan for allocating resources to build and maintain state buildings. The LRBP has two components: a “cash” program which is derived from a portion of cigarette taxes and coal tax trust funds, and the “bond” program which are bond proceeds which come from state issuance of general obligation bonds. The Department of Administration’s Architecture and Engineering Division analyzes LRBP requests from all state agencies and in conjunction with the Governor’s Office of Budget and Program Planning establishes

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priorities for legislative consideration and also presents recommendations regarding issuance of the general obligation bonds. The LRBP requests are provided to the legislature prior to the beginning of each legislative session.

The chart below presents the LRBP requests and appropriated amounts for the audited units for the 1997 and 1999 biennia. The amounts are approximate as some of the requests include funds for the MSU-Eastern and UM-Tech campuses.

Table 3
LRBP Requests and Appropriations 1997 and 1999 Biennia

		Appropriations				
1996-97 Biennium	Requests *	Cash Program	Bonded Program	Federal Special	Other	Total
MSU	\$78,662,896	\$1,389,700	\$9,120,000	\$10,815,946	\$2,840,000	\$24,165,646
UM	\$53,429,810	\$905,000	\$6,536,000		\$11,259,000	\$18,700,000
1998-99 Biennium						
MSU	\$89,929,825	\$2,197,500	\$18,568,713		\$21,988,619	\$42,754,832
UM	\$159,452,000	\$1,674,000	\$1,397,000		\$40,038,619	\$43,109,619

* Amounts are approximate as MSU-Eastern and UM-Tech requests are included.

Source: Compiled by LAD from Appropriation Reports

There is further discussion of the LRBP in Chapters III, IV, and V.

Chapter III - Deferred Maintenance Issues

Introduction

According to the APPA Facilities Management Manual, problems associated with deferred maintenance (DM) were heralded in the news media in the late 1970s. Portrayals of permanent scaffold-protected exterior walls, students huddled in overcoats in under-heated classrooms, and laboratories closed indefinitely for repairs introduced an awareness of the issues. While the magnitude of deferred maintenance varies between the university units, all of the units have problems associated with building obsolescence. Inevitably, building systems and components deteriorate and need replacement. Plumbing wears out, roofing breaks down and leaks, window frames warp, wiring becomes dangerous, heating/ventilation system fail to heat or cool, and original equipment can no longer be replaced. The speed and degree of addressing these inevitable circumstances dictate how large the DM liability is and also partially impacts the daily maintenance activities of facilities management personnel who must address breakdowns in building components. Potentially, the larger the size of the deferred maintenance liability, the more it impacts the operation and maintenance of facilities.

House Bill 2 language from the 1999 Legislative Session recommends a minimum of 13 percent of the total current unrestricted operating funds for the units be spent on operations and maintenance. The supposition was an increasing level of deferred maintenance has followed construction of new buildings and there has been a decline in the proportional amount of current unrestricted funds spent on operations and maintenance. The overall purpose of the House Bill 2 language was to reduce the level of deferred maintenance in university system buildings.

The term “deferred maintenance” can imply or infer a failure on the part of facilities management personnel in either management, judgment, or stewardship. However, it is APPA’s position that the deferred maintenance liabilities of universities have primarily resulted from under funding of major maintenance and capital renewal and replacement programs. In this chapter we focus on our audit objective of determining how the units identify/confirm DM liabilities, and what efforts are made to address DM with available

Chapter III - Deferred Maintenance Issues

funding and resources. The following sections generally describe the methodology used by the units to identify DM and our DM examination and findings. Additionally, we discuss accounting-related issues which potentially impact the amount of maintenance funds available to either prevent or address DM.

The overall conclusions we discuss in this chapter are:

- < Despite the need to improve DM identification and reduction strategies, the units' facilities management organizations showcase the campuses in the best possible light.
- < There is deferred maintenance at each of the units we audited;
- < The deficiencies listed in the inventories exist, but the inventories are missing data or the data is incomplete;
- < There is not a consistent or coordinated approach to the facility condition inventory process among the units;
- < The DM should be tied to budget and LRBP requests; and
- < Accounting procedures between the units are not consistent for facility management operations.

Facilities Condition Inventories (FCI) Were Developed to Assess Deferred Maintenance (DM) Backlog

According to facilities management directors at the units, the amount and types of DM have been increasing for numerous years. In an effort to identify and quantify DM, the Board of Regents mandated the units initiate a standardized methodology for assessing DM backlog. The Facility Condition Inventory or FCI is a nationally accepted and utilized method for identifying facility conditions. The units adopted the FCI concept to assess DM backlog.

The FCI is a self-assessment of facility deficiencies and functional performance through an inspection program and creation of observation reports. A dollar amount is associated with the deficiency using estimated renewal costs and established building replacement costs. The assessment process could help establish

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work priorities, provides documentation of renewal and replacement requests, and provides overall information to governing boards concerned with building conditions and infrastructure.

The priority rating system is based on the importance of taking the necessary corrective action derived from the input of the inspection team members. Priority rating systems sort out relative importance of each action, such as enhancing life safety (priority 1), preventing loss of a building component (priority 2), meeting code requirements (priority 3), environmental improvements (priority 4), conserving energy (priority 5), or saving other costs (priorities 6 & 7).

Once an FCI has been completed, facilities managers and others have an overall picture of the magnitude of DM deficiencies, the priority assigned to address the deficiencies, and an estimated renewal cost. Upon completion of the FCI there are numerous formula-based methods for analyzing the data. The FCI can be incorporated into future facilities management decisions.

Unit FCI Utilization

To confirm DM backlogs and assess unit utilization of the FCI process, we conducted tours at each campus. We judgmentally selected deficiencies of varying priority ratings in five or more of the state-owned buildings at each unit. The deficiencies were identified from the unit's FCI. Where necessary, we followed up with status and priority-related questions with facilities management personnel. We determined there is a DM backlog at each of units we reviewed; and the actual inventories of DM developed through the FCI process exist.

The following chart is a summary of the number of reported DM deficiencies by priority rating and estimated renewal cost for each of the units we reviewed.

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Table 4
Reported Deferred Maintenance Deficiency Renewal Costs

	MSU-Bozeman	MSU-Northern	UM-Missoula	UM-Western
Priority 1 Life safety	\$ 63,608	\$ 10,727	\$ 3,707,150	\$ 115,094
Priority 2 Bldg Components	20,738,913	5,743,822	19,537,982	2,914,873
Priority 3 Code Requirements	7,466,853	1,110,166	2,834,406	1,159,572
Priority 4 Environmental	1,273,936	478,625	81,132	105,023
Priority 5 Energy Conservation	3,047,555	1,055,785	3,139,711	595,508
Priority 6, 7 Other Costs	4,137,513	N/A	9,880,833	669,641
Totals	\$36,728,378	\$ 8,399,125	\$39,181,214	\$ 5,559,711

N/A – This type of priority was not identified on the campus.

Source: Compiled by the Legislative Audit Division from university unit FCI files.

As a result of the campus tours and review of unit FCIs we noted a wide range of types of DM. Examples of identified DM deficiencies found at all the units include exterior wall and foundation repair, comprehensive window replacement, replacement of damaged floors, and need for innumerable interior modifications.

Facilities Condition Inventory Procedures Are Inconsistent

As noted, our audit work confirms there is a significant backlog of DM at the four university units. Although each unit has an FCI and the listed deficiencies do exist, we found FCI procedures are inconsistent between the units. For example, MSU-Bozeman's Office of Facilities Services has a cyclical facility review process whereby each state-owned building on campus is reviewed once every three years to update the FCI. The review process consists of a building walk-through by a team of in-house personnel which includes an architect, engineer, various trades person supervisors, and other assigned personnel. Typically, there are meetings before

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and after the walk-through to fully discuss related issues for that building. Depending upon the size of the building, each review takes approximately one day to complete. At present, MSU-Bozeman is in its third cycle of DM-related building reviews which were initiated in 1992. However, at MSU-Northern, a less formal approach has been used. Only one comprehensive FCI review has been done of the state-owned buildings on this campus. It was completed during a one-week period in late 1994 and the review team included only a limited number of team members. A second review was completed in late 1999; however, it was substantially less formal than the scheduled reviews conducted at MSU-Bozeman.

At UM-Missoula, the FCI and its update process has also been less formal than MSU-Bozeman. While there has been an FCI done of the state-owned buildings on the main campus, there are a few other state-owned buildings administered by the university which have not been inventoried for DM. Also, although UM-Missoula has an alternative DM-related database which was created prior to the 1996 FCI, there was no formalized schedule for additional future inventories until summer of 2000. At UM-Western, there has only been one FCI completed, and it was done during 1999. However, one state-owned building on campus was not inventoried, so the FCI for this unit is not complete. Additionally, facilities management personnel at the units indicated comprehensive building walk-throughs (which are recommended by APPA) were not done for each building listed on the FCI for either UM-Missoula or UM-Western. An alternative approach was used whereby facilities management personnel created the FCI via verbal discussion of deficiencies based on staff experience with a particular building.

Unit Infrastructure Needs Are Not Consistently Considered in DM Assessments

The unit FCIs are also inconsistent with regard to infrastructure needs. While MSU-Bozeman and UM-Missoula show deficiencies and associated renewal costs for such things as heating systems, water and sewer lines, roads, and sidewalks, the FCIs for MSU-Northern and UM-Western do not include these type of deficiencies. However, our findings indicate there are at least some infrastructure problems at these campuses as well.

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APPA-related materials suggest the FCI format used by the units is primarily designed for building assessments, as opposed to infrastructure assessment. While we believe a process for assessing infrastructure DM should be developed and a system-wide assessment performed, the FCI-adapted infrastructure assessment conducted at the larger campuses are not consistent and not comprehensive due to the lack of supporting documentation.

Overall FCI Documentation Is Not Complete

We reviewed the available FCI supporting documentation for all buildings reviewed at the units. While MSU-Bozeman had the most complete documentation, none of the units had comprehensive documentation which fully explained how the FCI was completed, how the priority ratings were established, or how the estimated renewal costs were ultimately determined. Additionally, for those buildings where more than one FCI had been completed, the organizations did not retain the records of the prior FCI so it was not possible to assess changing DM backlogs. Review of unit FCI procedures and the associated database also indicated the estimated construction cost information from the nationally recognized estimation service has not been recently updated. As a result, the renewal cost estimates used in the most current unit FCIs are not necessarily as accurate as they could be.

FCI Coordination and Consistency Is Needed

The FCI's purpose is to provide management-type information with qualitative and quantitative building data which can then be used to help direct work activities and justify/support existing or proposed increases in operations and maintenance budgets. To have validity and be viewed as credible, the procedures employed to develop an FCI should be consistent, complete, and documented. The units' FCIs indicate an overwhelming DM issue, with the need for massive infusions of money to correct or renew the impacted buildings. However, our work suggests existing FCIs do not present a complete picture of DM deficiencies.

While there was communication and coordination between the units during initial FCI development and a standardized user manual was developed, there has been minimal follow-up since that time. As a result, the MSU campuses facilities management personnel conduct

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FCIs based on their philosophies and resource availability, and the UM campuses do likewise. The result has been an inconsistent system-wide approach to identifying and quantifying DM. Without a consistent process or procedures for conducting the FCI throughout the Montana University System, neither the Board of Regents nor the legislature can fully assess the magnitude of the DM backlog or fully evaluate how much effort should be directed at correcting the backlog.

Conclusion #1

Based on our review of Facility Condition Inventories and associated tours of the audited units we conclude:

- < **There is a deferred maintenance backlog.**
- < **The DM deficiencies listed in the FCI exist; however, because of incomplete information and insufficient documentation, the FCIs are not comprehensive.**
- < **There is not a fully coordinated or consistent approach to the units' FCI development. As a result, there are inconsistencies in how the DM was identified and/or quantified.**

DM Backlog Data Should Be Tied to Budget and LRBP Requests

Each of the unit facilities management organizations have operations and maintenance budgets which direct and control expenditure of funds. Additionally, all of the units have formal or informal policies on work prioritization. At MSU-Bozeman, there are separate budget categories for the different types of maintenance activities they conduct including: daily, preventive, scheduled, and major maintenance or DM. None of the other units use these types of specific budget categories even though such activities all play a role in their operations. For the most part, they record these activities as building maintenance. At present, none of the units have a formal or documented relationship or tie between a unit's FCI and its

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budgetary activities. Additionally, none of the units have specifically integrated FCI data into their daily, monthly, or annual work plans or priorities.

In addition to the lack of a formal tie between DM backlog identified in the FCI and budget/work activities, there is no formal tie between FCI data and the unit's LRBP requests. We examined the previous two biennia of LRBP requests to determine types of requests and whether the requests contained information derived from the units' FCI. While it was apparent many of the LRBP requests were DM-related, there was no documentation indicating the request was a result of the FCI. At present, the Architecture and Engineering Division does not require LRBP requests to include FCI-related information in agency LRBP submittals.

The APPA Facilities Management Manual states maintenance and repair budgets should be structured to explicitly identify the expenditures associated with activities to reduce the backlog of DM. Additionally, long-term and short-term needs should be identified concurrently for an institution to achieve desired goals for DM reduction. While the degree of seriousness varies among the units, at present FCIs are not formally incorporated into budgets, work plans, or LRBP requests. The only specific and available tool currently being used to identify and quantify DM is not subsequently formally considered when seeking and/or allocating funds. As a result, it is difficult to definitively assess how units address and/or prioritize DM in terms of day-to-day work activities or in their LRBP requests.

By virtue of the mandated creation of unit FCIs, there has been a system-wide awareness of the growing backlog of DM. However, neither the units nor the Board of Regents appear to formally use the information derived from FCIs to direct, shape, or prioritize the utilization/expenditure of maintenance and LRBP funds they request and receive.

Interviews with facilities management personnel and observations of activities suggest lack of available funding to begin a comprehensive

Chapter III - Deferred Maintenance Issues

DM reduction program has minimized motivation to more formally incorporate time-consuming FCI capabilities into unit planning and budgeting activities. Additionally, the FCI is only considered one aspect of the budget and work priority decision-making process. Other considerations noted by facilities management personnel include overall university needs and direction and resource limitations such as staffing.

Conclusion #2

DM backlog data is not formally incorporated into budget-related considerations/documentation or into LRBP requests. As a result, facilities management resources do not always tie to DM backlog identification and reduction.

Accounting for Facilities Maintenance Costs Among Units Is Not Consistent or Comparable

Each unit's facilities management operation maintains its financial information on the state's budget and accounting system and uses this system to provide costing information. However, we found the units are not consistent in how they record their financial information. As a result, facilities management operations at each of the units do not provide comparable information. The differences include inconsistencies in types of expenditures included by each unit as part of their facilities management operations, the costs recorded in the designated fund, and the calculation and recording of recharges to other campus areas. As a result, the information needed to develop Table 9 (page 42) could not be obtained from the state's accounting system.

Before the campuses were incorporated under the MSU and UM umbrella, each unit determined responsibilities and established accounting practices for facilities management operations. When the units were consolidated they were not required to adopt consistent responsibilities or establish uniform accounting practices for facilities management operations.

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Units Define Facilities Management Responsibilities Differently

We found each unit defines its responsibilities differently. The following are examples of some of the differences. UM-Western and UM-Missoula include at least some campus mail functions as part of their facilities management expenditures. The other units that administer mail include this function in their designated account activity and charge other campus areas for the services. MSU-Northern includes a package delivery system separate from the mail program for the campus as part of their operations. This is not included at any of the other campuses in the facilities management operations. UM-Missoula has general laborers recorded separately from other functions as part of its operations, although this is partially due to union requirements. At the other campuses these personnel are defined as either custodians, landscape and grounds workers, or building maintenance workers, thus making cost comparisons by function difficult. Without the costs by function, a determination of the amount spent on building maintenance cannot be readily made.

We found MSU-Bozeman established a designated account for all shop labor and materials used on campus projects. Personal service expenditures and operating costs related to carpentry, electrical, and plumbing and the related revenues are included as part of the financial activity recorded in this account. Revenues received fund the personal service expenditures and materials used by the shops. UM-Missoula records all personal service expenditures for shop labor as part of operations and maintenance of plant funded through the general operating fund. Expenditures for materials used on physical plant operations are recorded in the designated account but few labor charges are recorded there. This results in UM-Missoula facilities management operation recording significantly higher personal service expenditures in the general operating fund than MSU-Bozeman. We noted staffing levels overall as shown in Table 1 on page 11 showing slight differences, certainly not the large differences indicated by the personal services expenditures.

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Unit Recharge Processes and Approaches Vary

We also found the units use different methods to develop amounts charged to other campus programs. In some cases this resulted in undercharging users. For example, undercharging the auxiliaries for the costs of the services means current unrestricted funds are being used to support auxiliary enterprises in some cases. This is inconsistent with current CUBA guidelines. We found both UM-Western and UM-Missoula do not include the percentage of labor costs used when generating steam from the heating plant in the utility costs charged to the auxiliaries. UM-Missoula and MSU-Bozeman's facility management operations pay utility costs for some auxiliary operations in exchange for office and other types of space. We also found at UM-Missoula, MSU-Bozeman, and MSU-Northern the recharge amounts were not always increased as the costs of providing services increased. As a result, auxiliary work conducted by facilities management personnel at these units may be partially subsidized with current unrestricted funds.

Additionally, we determined each of the audited units' accounts for recharge revenues in a different manner. For example, UM-Western records all of its recharge income as a reduction of repair and maintenance expenditures, while MSU-Bozeman records recharge revenues as reductions of the appropriate amount of both personal service expenditures and operating expenditures, again making system-wide comparisons of operations difficult.

Incorrectly Recorded Financial Transactions

Section 17-1-102, MCA, requires university units to accurately record their financial transactions on the state's budget and accounting system. At MSU-Bozeman we found the university records current general operating fund transfers to the plant fund as expenditures. Recording transfers as expenditures in this manner overstates the actual expenditures for the operations and maintenance program. We found the university recorded transfers of \$1,212,217 in 1996-97, \$757,525 in 1997-98, and \$703,406 in 1998-99 as expenditures. Based on discussion with Office of Budget and Program Planning personnel about the budget process, overstating expenditures can result in additional budgetary authority in succeeding years under the incremental budgeting method currently used to allocate facilities management operational funds.

Chapter III - Deferred Maintenance Issues

Uniform Reporting Is Necessary to Measure Performance and Meet Future Financial Reporting Requirements

According to APPA, to control costs such as building maintenance expenses it is necessary to have a way of measuring the cost of providing the service. Cost accounting systems, when properly structured, provide a means of measuring the cost/benefit of maintenance programs. Cost accounting furnishes management with the necessary tools for planning and controlling activities in a timely manner. The collection, presentation, and analysis of data should help management track maintenance costs, capital project costs, and costs to be charged to facilities management customers.

In addition, the Governmental Accounting Standards Board issued Statement 34 establishing new financial reporting requirements for state governments effective July 2001. These requirements include recording the historic cost of buildings as assets. For the first time, depreciation expense is to be included as a direct expense of state government. Consideration of the condition of the building is to be used as part of the calculation of the asset. Also, infrastructure such as sidewalks, heating tunnels, and roads is to be recorded and its condition assessed at least every three years, again for the first time. Implementing these requirements will require the university system to have consistent treatment for recording the cost, depreciation, and condition of its buildings and infrastructure.

Also, the Montana University System is considering a formula-based approach for operations and maintenance funding as opposed to the current incremental budgeting approach in place. As part of this consideration we believe it is important for the Board and Commissioner's office to use consistent and comparable data to determine the viability of a formula-based approach.

Conclusion #3

The university units differing facilities management accounting procedures make unit-to-unit comparisons difficult. Further, due to new financial reporting requirements which will become effective July 2001, consistent reporting procedures and incorporated building assessments will be essential.

Facilities Management Is Impacted Daily by Deferred Maintenance and the Ongoing Need to Prioritize Resources

A review of the various types of work orders processed by the units show a portion of the units' facilities management personnel's daily work activities involve repairs and replacements associated with the effects of deferred maintenance. Based on observations of facilities management personnel activities and campus tours, we believe the units' facilities management personnel are adept at coping with these types of issues. However, the level and type of effort which is directed towards deferred maintenance is also impacted by the resources (funds and staffing) available to properly correct these deficiencies. Our examination of staffing levels at the audited units over the last 10 years shows custodial, building maintenance, and grounds/landscape maintenance staffing levels have remained fairly stagnant over the period. However, during this time (1990-1999) total campus square footage has increased by over 330,000 square feet. Based on this, it appears new buildings are impacting resources as the organizations must operate and maintain the additional square footage with similar FTE levels as those from 1990.

Resource-based decisions are made as a result of legislative appropriations, Board and unit-based allocations, and facilities management administration. When or if the appropriate resources are not available to properly correct an identified deficiency, the DM liability increases.

We believe the facilities management organizations within the units fully recognize the implications of limited resources, and they make a concerted effort to appropriately direct their efforts. As noted in interviews with facilities management directors and the APPA Facilities Management Manual, facilities managers must view their organization as a service sector industry which operates in support of the overall enterprise known as higher education. As a support function, facilities management organizations must remain flexible in terms of their planned activities and available resources. However, the long-term overall impact of the need to be reactive instead of proactive has also limited the facilities management organizations' motivation and capability to do comprehensive development of DM reduction strategies.

Conclusion #4

We presented APPA-developed data in Chapter II which suggests facility and campus appearance plays a significant role in influencing students' choice of universities. Our campus tours and general observations of facilities management operations at the units suggest a cognizant, dedicated effort to visually present the grounds and facilities in the best light possible. Further, our review indicates the facilities management organizations are innovative, flexible, and conscientious regarding their obligations and role in overall unit operations.

Chapter IV - Overall Funding Considerations

Introduction

In Chapter III we conclude the units have identified deferred maintenance liabilities, there is not a standardized or coordinated approach to FCI development, the DM backlog should be tied to budget and LRBP requests, and accounting practices should be consistent. In this chapter we summarize the answers to the audit objectives regarding unit maintenance activities and provide additional information about the budgetary allocations and financial implications of deferred maintenance.

The following are the questions and corresponding answers we focused on during our audit. The general question answered during our audit was **“What are the levels and types of effort given to unit maintenance?”** We further separated the general question into several components noted in the following section headings.

What Levels and Types of Effort Are Given to Daily and Ongoing Maintenance?

Daily, ongoing maintenance is the mainstay of the units' facilities management organizations. Our review of work orders indicated a substantial portion of the daily activities of facilities management personnel revolves around building component breakdowns and building occupant requests. The priority given to addressing identified maintenance needs depends on type and location of the problem, costs and manpower associated with correcting the problem, and, in some cases, who has requested the problem/issue to be addressed. However, each of the units has formal or informal criteria or priorities for work order requests. We found life safety issues and problems which impact unit operations generally receive the highest priority. A lesser priority is given to building occupant requests for projects such as room/office improvements or renovations. Preventive and scheduled maintenance projects are also given a lower priority, especially when there are funding limitations. For example, we found all of the units increased the time between interior painting schedules in answer to budgetary constraints.

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What Levels and Types of Effort Are Given to Preventive Maintenance?

Each unit has some type of formal or informal preventive maintenance (PM) program which the facilities management organizations have incorporated into their work activities. The amount and overall formality of the programs varies among units. Comprehensive PM schedules are developed and subsequent manual or automated monitoring of work completion is done by MSU-Bozeman and UM-Missoula. MSU-Northern and UM-Western's PM programs are more informal in terms of both schedules and monitoring completion of PM work. However, none of the units have a fully formulated PM process relative to an analysis of the impacts of their PM and whether more or less PM should be performed.

Overall, we found all of the units perform preventive maintenance such as changing belts, lubrication, and filter replacement on items such as heating and ventilation systems. Conversely, none of the units generate measurements or information regarding the impacts of these PM programs on other maintenance activities, such as daily maintenance. For example, MSU-Bozeman has a designated PM budget, an automated system for scheduling and evaluating PM-related work, and designated staff to conduct the work. However, our review indicated approximately one-half of the PM budget has been used for other maintenance-related activities in the past several years. At present, MSU-Bozeman does not formally evaluate the positive or negative impacts of this type of management decision. None of the other units conduct any type of performance-based measurement of their PM programs.

What Is the Level and Type of Effort Given to Deferred Maintenance?

Overall, the primary tool used by the units to address or reduce deferred maintenance (DM) liabilities is the LRBP. While MSU-Bozeman has a specific program to fund major maintenance which includes some DM liabilities, none of the other audited units have any type of formal DM reduction strategy other than the LRBP. As an organization, MSU-Bozeman's Office of Facilities Services has made a cognizant effort to eliminate or address the FCI-identified priority one (life safety) deficiencies on campus. However, as noted previously, neither MSU-Bozeman nor the other audited units use the FCI-identified DM deficiencies to formally

Chapter IV - Overall Funding Considerations

focus either their LRBP requests or facilities management budgets. While some DM deficiencies are addressed by the units on an ongoing basis because either they become a life safety issue or the deficiency has an operational impact which can no longer be ignored by the units, there has been no formalized effort to specifically address what can only be viewed as a growing liability. In a later section of this chapter, we identify the financial impacts of the DM liability facing the four audited units.

Have the Operations and Maintenance Budgets of the University Units Been Adversely Impacted by the Present Funding Structure?

Funds typically flow into facilities management operations from two funding sources, current unrestricted funds and plant funds. According to APPA, current unrestricted funds should routinely provide for major maintenance and plant funds provide for capital improvements such as additions, remodeling, or extensive renovations in buildings. As discussed in Chapter II, major maintenance is defined as a larger, more complex maintenance activity involving long-term repairs and replacement of major campus and building components. Some deferred maintenance is also corrected via plant funds. Under funding of major maintenance and capital renewal and replacement typically results in increasing backlogs of deferred maintenance. We examined the budgetary process for funding facilities management operations at the units to assess how funding decisions have impacted these operations.

We found operations and maintenance budgets at each of the units have been impacted by three factors: reductions in the percentage allocated to them, lump-sum formula funding decisions, and expansion of physical plant responsibilities via construction of new buildings over the last several biennia.

Funding Allocations

As discussed in Chapter II, legislative allocation of a single lump sum appropriation allows the Board of Regents (Board) the ability to prioritize needs of the Montana University System as a whole. It also allows management flexibility among the units as well as among campus programs. The Office of the Commissioner of Higher Education allocates lump-sum funds using the Board's cost of education model.

Chapter IV - Overall Funding Considerations

While total distributions are made to individual campuses, the campuses are not required to use the cost of education model to subsequently allocate funds to internal programs. Rather, the units are required to submit program operating budgets and have them approved by the Board prior to October 1 of each year. Campus budgetary committees allocate the distributions received from the Commissioner's office, determining funding amounts for various programs on the campuses. Decisions regarding which competing priorities receive funding are made based on campus philosophies, and final approval of the campus budget rests with the schools' presidents/chancellors. Operating budgets are typically presented by university program - instruction, research, public support, academic support, institutional support, and operations and maintenance of plant. Current campus philosophy generally prioritizes instructional programs over other programs. The purpose of universities is to provide students instruction and without students the universities would not exist.

Below we present current unrestricted funds expenditures of various campus programs for the last three years.

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Table 5
Current Unrestricted Fund Expenditures
Fiscal Years 1996-97 to 1998-99

	1996-97 (Actual)	1997-98 (Actual)	1998-99 (Actual)
MSU-Bozeman			
Instruction	\$37,311,703	\$38,807,674	\$40,244,811
Research	\$664,739	\$667,746	\$514,353
Public Services	\$674,518	\$899,539	\$680,821
Academic Support	\$8,171,512	\$8,129,569	\$8,716,823
Student Services	\$5,583,455	\$5,718,419	\$6,044,558
Institutional Support	\$4,854,889	\$4,964,181	\$4,562,230
Operation & Maintenance of Plant	<u>\$8,222,969</u>	<u>\$8,008,999</u>	<u>\$8,939,278</u>
Total	\$65,483,785	\$67,196,127	\$69,702,874
MSU-Northern			
Instruction	\$4,818,715	\$4,806,163	\$4,796,630
Research	N/A	N/A	N/A
Public Services	N/A	N/A	N/A
Academic Support	\$1,003,796	\$1,111,560	\$1,093,721
Student Services	\$1,060,644	\$1,085,856	\$1,067,329
Institutional Support	\$945,821	\$1,054,752	\$1,071,435
Operation & Maintenance of Plant	<u>\$1,096,245</u>	<u>\$1,082,841</u>	<u>\$1,164,114</u>
Total	\$8,925,221	\$9,141,172	\$9,193,229
UM-Missoula			
Instruction	\$36,785,752	\$39,376,608	\$42,437,760
Research	\$949,823	\$966,373	\$970,779
Public Services	\$433,974	\$627,954	\$735,950
Academic Support	\$8,916,315	\$9,540,278	\$10,144,989
Student Services	\$4,833,671	\$5,002,093	\$5,157,417
Institutional Support	\$6,436,715	\$6,099,466	\$5,816,492
Operation & Maintenance of Plant	<u>\$6,944,441</u>	<u>\$7,008,292</u>	<u>\$7,587,279</u>
Total	\$65,300,691	\$68,621,064	\$72,850,666
UM-Western			
Instruction	\$3,128,251	\$3,286,846	\$3,185,290
Research	N/A	N/A	N/A
Public Services	N/A	N/A	N/A
Academic Support	\$405,583	\$444,562	\$475,598
Student Services	\$744,682	\$723,797	\$729,478
Institutional Support	\$792,430	\$963,501	\$1,044,122
Operation & Maintenance of Plant	<u>\$714,888</u>	<u>\$716,699</u>	<u>\$881,977</u>
Total	\$5,785,834	\$6,135,405	\$6,316,465

N/A - Expenditures for these programs not by recorded by these units.

Source: Compiled by the Legislative Audit Division from Commissioner's Office information.

Chapter IV - Overall Funding Considerations

As can be seen from the information presented above, the amount of general operating funds spent on operating and maintaining physical plants and/or on reducing deferred maintenance competes against other programs. Campus budgetary committees must balance instructional program needs with other campus needs, such as campus appearance. In addition, if budget overruns occur during the year or if student enrollment is lower than projected, budget reductions must occur if the units are to stay within their budget appropriations.

We reviewed the budget process used to allocate funding to Facility Management Operations. As discussed in Chapter II the legislature appropriates a lump sum to the Montana University System. The facility management portion is calculated using an incremental amount based on expenditures in the base year with adjustments reflecting one-time costs, inflationary changes, and pay plan increases. We present the amounts included in the lump sum calculation for the four audited units below.

Table 6
Incremental Base Included in Lump-Sum Calculations
Fiscal Years 1995-96 Through 1998-99

	1995-96	1996-97	1997-98	1998-99
MSU-Bozeman	\$7,120,798	\$7,521,355	\$8,359,091	\$8,600,889
MSU-Northern	\$1,346,798	\$1,358,736	\$1,234,853	\$1,237,955
UM-Missoula	\$6,345,751	\$6,556,144	\$6,793,663	\$6,809,713
UM-Western	\$ 731,459	\$ 737,606	\$ 754,117	\$ 758,882

Source: Compiled by the Legislative Audit Division from Commissioner's Office budget documents.

It should be noted that the above amounts are used to arrive at the lump-sum amount prior to completion of the legislative appropriation process. The appropriation process may increase or decrease the entire lump-sum appropriation. General appropriation increases or decreases are reflected in the amounts subsequently allocated to the various university units through the cost of education model.

Chapter IV - Overall Funding Considerations

To further compare the incremental base amounts to the Board of Regent operating budget amounts we reviewed the Board of Regent approved operating budgets during the periods presented on the previous page.

Table 7
Board of Regent Approved Operating Budgets
Fiscal Years 1995-96 Through 1998-99

	1995-96	1996-97	1997-98	1998-99
MSU-Bozeman	\$6,963,875	\$7,800,498	\$8,287,839	\$8,613,441
MSU-Northern	\$1,255,397	\$ 929,956	\$1,139,235	\$1,110,883
UM-Missoula	\$7,000,704	\$7,158,067	\$7,120,704	\$7,541,458
UM-Western	\$ 749,728	\$ 737,368	\$ 741,667	\$ 716,643

**Source: Compiled by the Legislative Audit Division from
Commissioner's Office budget documents.**

The amounts presented above are allocated based on campus budgetary decisions not on the cost of education model. As can be seen from comparing Tables 6 and 7 the amounts used to calculate a lump-sum amount do not correspond with the amounts approved as operating budgets by the Board of Regents.

We also reviewed the operating budgets used by facility management operations to monitor their financial activities.

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Table 8
Facility Management Operating Budget
Fiscal Years 1995-96 Through 1998-99

	1995-96	1996-97	1997-98	1998-99
MSU-Bozeman	\$7,143,414	\$7,323,029	\$8,150,200	\$8,803,525
MSU-Northern	N/A	N/A	N/A	N/A
UM-Missoula	\$6,032,314	\$6,685,083	\$6,724,844	\$7,278,929
UM-Western	\$ 770,748	\$ 729,649	\$ 700,210	\$ 761,656

N/A – Information on budgetary allocations at the campus level were not available.

Source: Compiled by the Legislative Audit Division
from unit budget documents.

Comparing the amounts in Table 7 and Table 8 shows for the most part, facility management budgets were reduced during the year.

In addition to the general significance of these funding reductions, there is an associated impact due to the incremental budget process used for the facilities management portions of the lump-sum legislative appropriation. Once the expenditures for physical plant are reduced, the incremental amount used for future budgets is subsequently reduced as well. Therefore, when/if actual expenditures decrease due to budget cuts or reprioritization of legislative funding, subsequent facilities management funds may be decreased as well.

Budget Reductions After Budget Allocations Further Impact Some Units' Facilities Management

As discussed above, we reviewed budget reductions for facilities management operations after initial program budgets had been approved. Review of budget transfers from the facilities management organization at UM-Missoula completed after campus budgets were established shows significant fund transfers.

We determined almost \$800,000 in budget authority was reallocated from facilities management operations to other campus programs at UM-Missoula over the last four years. These funds potentially could have been used to reduce deferred maintenance liabilities. Review of budget reduction plans for fiscal year 2000 and 2001 indicate

Chapter IV - Overall Funding Considerations

additional reductions for UM-Missoula facilities management operations occurring. These reductions will likely result in permanent staffing reductions, mainly related to state building maintenance functions. According to UM-Missoula officials, the university must preserve instruction as it is the purpose of the university. In addition, both MSU-Northern and UM-Western have experienced budget reductions in their facility management operations in the last few years.

Facilities Maintenance Funds Split Between Several Functions

Facilities management organizations develop budgets and allocations at the operational level based on campus allocations. Most organizations allocate budget authority and funding by functional responsibilities such as custodial, landscape and grounds, and building maintenance services. In addition, costs for utilities, insurance, and administration are also paid from facilities management funds. Presented on the next page is a chart showing the percentage of funds spent on each function for fiscal years 1996-97 through 1998-99 for the four audited units.

Chapter IV - Overall Funding Considerations

Table 9
Facility Management Expenditures
Fiscal Year 1996-97 to 1998-99

	MSU-Bozeman (Estimated)	MSU-Northern	UM-Missoula (Estimated)	UM-Western* (Estimated)	Total	
1996-97						
Utilities	\$2,796,728	\$311,304	\$2,098,280	\$282,540	\$5,488,852	33.76%
Building Maintenance	\$2,292,406	\$243,024	\$1,466,345	\$182,400	\$4,184,175	25.74%
Custodial	\$1,598,120	\$240,476	\$834,634	\$172,259	\$2,845,489	17.50%
Landscape/Grounds	\$461,697	\$110,138	\$281,039		\$852,874	5.25%
Administration	\$277,767	\$94,380	\$320,441	\$126,891	\$819,479	5.04%
Rentals	\$159,111		\$412,094		\$571,205	3.51%
Facilities Planning	\$224,198		\$283,713		\$507,911	3.12%
Hazardous Waste	\$304,089	\$2,542	\$128,242		\$434,873	2.68%
Insurance	\$109,417	\$20,606	\$103,897	\$8,520	\$242,440	1.49%
Other		\$78,901	\$165,591	\$65,139	\$309,631	1.90%
Totals	\$8,223,533	\$1,101,371	\$6,094,276	\$837,749	\$16,256,929	100.00%
1997-98						
Utilities	\$2,906,761	\$300,470	\$2,195,687	\$271,063	\$5,673,981	34.49%
Building Maintenance	\$1,755,777	\$199,451	\$1,489,090	\$206,751	\$3,651,069	22.20%
Custodial	\$1,588,657	\$204,736	\$1,361,642	\$108,656	\$3,263,691	19.84%
Landscape/Grounds	\$577,775	\$116,192	\$300,592		\$994,559	6.05%
Administration	\$305,468	\$91,580	\$331,094	\$115,783	\$843,925	5.13%
Facilities Planning	\$252,175		\$275,564		\$527,739	3.21%
Rentals	\$156,646		\$408,582		\$565,228	3.44%
Insurance	\$120,543	\$1,797	\$110,683	\$10,288	\$243,311	1.48%
Hazardous Waste	\$318,640	\$2,146	\$70,604		\$391,390	2.38%
Other		\$79,927	\$158,638	\$56,414	\$294,979	1.78%
Totals	\$7,982,442	\$996,299	\$6,702,176	\$768,955	\$16,449,872	100.00%
1998-99						
Utilities	\$2,981,336	\$382,317	\$2,289,300	\$280,988	\$5,933,941	32.65%
Building Maintenance	\$2,111,852	\$264,428	\$1,599,294	\$330,978	\$4,306,552	23.70%
Custodial	\$1,752,731	\$199,530	\$1,419,092	\$91,062	\$3,462,415	19.05%
Landscape/Grounds	\$685,634	\$103,530	\$321,936		\$1,111,100	6.11%
Administration	\$317,582	\$66,780	\$377,912	\$101,139	\$863,413	4.75%
Rentals	\$315,525		\$627,330		\$942,855	5.19%
Facilities Planning	\$261,567		\$288,416		\$549,983	3.03%
Hazardous Waste	\$377,016		\$67,140		\$444,156	2.44%
Insurance	\$121,820	\$25,337	\$111,158	\$10,120	\$268,435	1.48%
Other		\$81,002	\$157,632	\$51,454	\$290,088	1.60%
Totals	\$8,925,063	\$1,122,924	\$7,259,210	\$865,741	\$18,172,938	100.00%

* Recharge amounts included in figures.

Source: Compiled by the Legislative Audit Division from SBAS.

Chapter IV - Overall Funding Considerations

As can be seen from the above chart, facilities management organizations must juggle competing demands when budgeting for functions within their operations. Overall, over 30 percent of facilities management funding went for utilities. Increases in the costs of natural gas and electricity can significantly impact funding available for other areas, such as maintenance. According to Department of Administration officials, a recently bid contract for natural gas covering the last ten months of fiscal year 2000-01 and fiscal year 2001-02 will increase the costs of natural gas by over 40 percent. Natural gas expenditures at the four audited units were \$1,241,746 in fiscal year 1998-99, a 40 percent increase would increase the cost an additional \$496,698 further reducing the amount available for maintenance. Universities are also facing increases in electricity, water, sewer, and trash collection costs.

According to APPA, approximately 86 percent of the costs of a building with an expected life of 40 years is the operations and maintenance costs. The other 14 percent of the costs are the building's design and construction. At UM-Missoula, we noted two recently-completed buildings, built with private funds, are operated and maintained by its facilities management. The costs of operating and maintaining these buildings was \$756,479 in fiscal year 1998-99. Assuming no inflation and similar expenditures in future years, the cost of operating and maintaining these buildings over the next 40 years would be \$30,259,153. The cost of operating and maintaining new buildings further stretch the resources of facilities management organizations, reducing the amount available to maintain previously-constructed buildings.

The amount of general operating funds spent on building maintenance has averaged approximately 24 percent of facilities management resources each year or about \$4.3 million a year for the four audited units. While this is the second largest category of functional expenditures, the amount mainly goes for daily and ongoing maintenance projects, leaving little for major maintenance projects which can reduce deferred maintenance liabilities.

Chapter IV - Overall Funding Considerations

In our examination of facilities management operations, we found MSU-Bozeman is the only campus budgeting major maintenance as a distinct category from current unrestricted funds. The amount MSU-Bozeman budgeted for the category averaged \$453,829 over the last four years. The remaining campuses included major maintenance in their general building maintenance expenditures budget category or funded this work out of plant funds. According to APPA, major maintenance has historically been treated as a residual category after budgeting for plant administration, building and equipment maintenance, custodial services, utilities, and grounds maintenance. Residual, meaning any funding remaining after other areas are funded, can be used on major maintenance.

The impact of the residual approach - often leaving major maintenance and functional improvements unfunded - has proven to provide inadequate funds to meet plant needs and is how most university campuses reached their current levels of deferred maintenance. It appears this is occurring in the units we reviewed. We believe this is another factor in the increasing deferred maintenance liability at the audited campuses.

Summary

A number of factors are contributing to the campus deferred maintenance liability. Some of these factors include campus priority establishment, balancing building maintenance with funding other functions within facilities management such as utilities, construction of new buildings, and residual treatment of major maintenance. All factors resulted in increased deferred maintenance liabilities. The chart below presents the reported deferred maintenance backlog of the four audited campuses.

Chapter IV - Overall Funding Considerations

Table 10
Deferred Maintenance Backlog

MSU-Bozeman	\$ 36,728,378*
MSU-Northern	\$ 8,399,125
UM-Missoula	\$ 39,181,214*
UM-Western	<u>\$ 5,559,712</u>
Totals	\$ 89,868,429

* Excludes self-identified infrastructure deficiencies which were not incorporated into the UM-Western and MSU-Northern FCIs.

Source: Compiled by the Legislative Audit Division from Unit FCIs.

What Funding Is Needed to Address Deferred Maintenance Liabilities?

According to APPA, the preferred approach to addressing DM is to establish an appropriate level of funding for both major maintenance and capital renewal in the operating budget to prevent continued obsolescence of facilities. This is opposite of the residual approach, which is being used by the units and has contributed to DM. The question becomes what is the level of funding required to address this growing liability? In a national study on the maintenance and repair of public buildings, the National Research Council's Building Research Board concluded an appropriate total budget allocation for routine maintenance and capital renewal is in the range of two to four percent of the current replacement value of the applicable facilities. Using the current replacement value of \$548,068,940 for state-owned buildings, as calculated by the audited units in their FCIs, the budget allocation to the four units for routine maintenance and capital renewal would be between \$10.96 and \$21.92 million a year. **This amount does not include allocations to reduce deferred maintenance liabilities.**

To begin to estimate the level of funding required by the four campuses, we used an APPA-developed funding projection model which projects the level of annual major maintenance funding

Chapter IV - Overall Funding Considerations

required to keep deferred maintenance at a certain level. The model components include consideration of annual funding, deferred maintenance backlog amounts, building replacement values, inflation, plant growth, and plant deterioration rates. We calculated the funding amounts needed to keep the current backlog from increasing. For purposes of this report, we used the most conservative numbers possible to obtain the minimum level of funding required each year by the four audited campuses. We emphasize this calculation gives the amount of funding needed to keep the deferred maintenance liabilities at **1999-2000** levels. Substantial additional funding would be required to reduce the deferred maintenance liabilities already identified. The chart below outlines the minimal funding needed by each campus each year.

Table 11
Projected Minimum Annual Funding to Maintain But Not
Reduce Current DM Liability for Fiscal year 1999-2000

MSU-Bozeman	\$6,420,179
MSU-Northern	\$1,296,732
UM-Missoula	\$7,317,918
UM-Western	<u>\$1,372,437</u>
TOTAL	\$16,407,266

Source: Compiled by the Legislative Audit Division.

An additional important point to consider when reviewing this information, according to APPA, is a one-time elimination of deferred maintenance priorities does not solve the problem of facility renewal. Campus facilities continue to deteriorate each year, adding to existing deferred maintenance liabilities and requiring continued resource allocations.

To further determine the costs of reducing deferred maintenance, we examined the major maintenance expenditures for all state-owned campus buildings at the audited units. We noted only **one** building on the four campuses had a zero maintenance liability: the Animal Resource Center at MSU-Bozeman. From a review of major

Chapter IV - Overall Funding Considerations

maintenance work orders over the last four years we determined expended funding was \$9.60 a square foot over the four years or \$2.40 a square foot a year for this facility. Using this square footage cost we estimate it would require \$9,618,338 per year to fund major maintenance for state-owned buildings on the audited campuses at the same level as the Animal Resource Center. This compares with \$1.48 a square foot spent on major maintenance in fiscal year 1998-99 by the units. While the amount of major maintenance funds required to achieve a zero maintenance liability will differ depending on building usage, age, and quality of maintenance, this generalization still demonstrates additional funding is needed for major maintenance.

How Do the Campuses Currently Fund Major Maintenance Projects When Residual Funds Are Not Available?

Due to limited resources available from current unrestricted funds, campuses rely on other funding sources, mainly plant funds and the Long Range Building Program, to address major maintenance issues. A review of plant fund projects on the campuses showed the majority of the funding is used for auxiliary projects. Auxiliary fund projects are supported mainly by revenue bond proceeds. In addition, students at UM campuses voted to assess themselves an additional fee to fund classroom and laboratory maintenance projects in state-owned buildings. This was due to student concerns about the condition of buildings where they attended classes. These types of plant fund projects are also funded through revenue bonds repaid with assessed student fees.

The Long Range Building Program is used by the campuses as the main source of funds for large major maintenance projects and is the main mechanism used to fund deferred maintenance projects on state-owned buildings. We discuss the Long Range Building Program further in Chapter V.

Chapter IV - Overall Funding Considerations

Conclusion #5

Numerous factors have contributed to the growing deferred maintenance liability at the four units reviewed, most of which are funding-related. However, we found requiring the units to expend a percentage of current unrestricted fund appropriation on physical plant maintenance does not necessarily reduce DM liabilities. Additional funding is needed if the units are to appropriately maintain/protect state-owned buildings on the campuses.

Chapter V - Recommendations

Introduction

The legislature, Board of Regents, Office of the Commissioner of Higher Education, and campus budgetary committees are all involved in budgetary decisions which affect the amount of resources available to reduce deferred maintenance (DM) liabilities. If the legislature and other applicable parties wish to fully identify and begin to systematically address the growing DM liability, strategies and specific fund resources will need to be developed. We discuss this further in the following sections.

What Should Be Done to Address Growing Deferred Maintenance Liabilities?

We believe in order to address the deferred maintenance liability the campuses must first fully and accurately identify their DM liabilities. We discuss the inconsistencies found with the Facility Condition Inventory process (FCI) in Chapter III. The campus FCI development procedures should be consistent and up-to-date to ensure consistent and complete information. In addition, FCI utilization should be expanded to include developing information and estimates on resources needed to address DM liabilities.

APPA recommends development of a comprehensive facilities funding plan. The goal of the program would be to ensure new capital assets, i.e. newly constructed facilities, are acquired based on well-defined needs. According to APPA, new additions should also be considered to determine if they are cost-effective additions to the plant. This means utilization of existing space is fully examined prior to commitments for planning and funding new construction. In addition, facilities management operations must be fully funded to prevent accumulation of additional deferred maintenance backlog. Finally, the current maintenance backlog should be addressed through identification using a FCI process and assessment of priorities to define funding needs. This requires strategic planning and regular evaluation and adjustments to fit changing conditions.

We noted the Board of Regents has begun evaluation of deferred maintenance liabilities. First, the Board requested the university units use FCIs to assess deferred maintenance needs. Recently, some campuses have started to compile space utilization information. Finally, in the 2003 biennium LRBP requests, the Board has asked for funds to develop comprehensive master plans for the system.

Chapter V - Recommendations

We believe the Board and Commissioner's office should more formally and comprehensively examine the impacts of DM liabilities on overall campus operations. Such a plan is needed to improve and protect state-owned resources. Areas of consideration include:

- < Analysis of the balance between funding instructional programs and physical plant operations and maintenance programs.
- < Subsequent funding requests for major maintenance.
- < New construction and capital renewal projects should also be addressed as part of a comprehensive facilities funding plan.
- < The Board should increase their examination of budget and LRBP requests and subsequent unit allocation and reallocation of funds to ensure the funding plan is followed.

Recommendation #1

We recommend the Board of Regents establish a comprehensive facilities funding plan for the Montana University System which includes:

- A. Comprehensive FCI processes which are consistent and coordinated throughout the system to ensure accurate and complete information.**
- B. Requirements for facilities management budget and LRBP requests to incorporate FCI information as part of prioritization.**
- C. Requirements for ensuring facilities management reporting procedures allow for unit-to-unit comparisons and system-wide measurements of DM reduction strategies and efforts.**

What Role Does the Long Range Building Program Play in Prevention and Reduction of University Unit Deferred Maintenance Liabilities?

While funding apportionment is the responsibility of the Board of Regents, the Commissioner's office, and the campuses, the legislature's role is still to determine the amount of state funding appropriated to the Montana University System each biennium. A comprehensive facilities funding program outline would provide detailed information for the legislature's consideration when making funding decisions on the maintenance and construction priorities of the system.

As noted in Chapter IV, the units rely on the LRBP as the primary funding mechanism to address deferred maintenance liabilities. Review of the units' LRBP requests for the past several biennia shows the majority of requests have been related to reducing deferred maintenance liabilities. However, despite the large number of requests, the units have also placed a higher priority on obtaining new buildings. This is partially due to the limited availability of funds traditionally allocated to building maintenance.

LRBP Cash Program

Historically, the LRBP "cash" program has been used to fund building maintenance projects. The original main funding source for the cash program, cigarette taxes, has been declining over the past ten years. In fiscal year 1995-96 the legislature began directing part of the coal tax trust fund interest to the LRBP. The chart on the next page outlines the revenues and expenditures budgeted for the LRBP in the 2001 biennium.

Chapter V - Recommendations

Table 12
Capital Projects Fund
Long-Range Building Account
Fund Balance Projection – 2001 Biennium

Estimated Beginning Fund Balance	\$2,208,200
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Revenues

Cigarette Tax (15.85%)	\$4,287,000	
Coal Severance Tax (12%)	2,936,132	
Coal License Tax (16.99%)	4,918,435	
Interest Earnings	918,768	
Supervisory Fees	682,884	
DEQ Transfer - State Buildings	347,003	
Total Revenues		14,090,222

Expenditures

Operating Costs - A & E Division	(\$2,036,918)	
Debt Service - 1996D Issue	(3,625,650)	
Debt Service - 1997 Issues	(890,554)	
Debt Service - Bonds Outstanding	(1,478,815)	
Total Expenditures - Excluding Capital Projects		(8,031,937)

Legislative Appropriation - 2001 Biennium

Capital Construction Program	(7,515,000)
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Estimated Ending Fund Balance	751,485
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Source: **Compiled by the Legislative Audit Division from the 2001 Biennial Appropriation Report.**

As can be seen from the chart above, over half of the revenues of the cash program are used to finance Architecture & Engineering Division (A & E) operations and pay debt service for the bonds used for new construction rather than reduction of deferred maintenance liabilities. This leaves only \$7.5 million available for maintenance

Chapter V - Recommendations

projects on all state buildings, including the requests from the university units. Given the amount of the deferred maintenance liabilities of the four audited units and the need to maintain other state buildings, the cash program of the LRBP cannot significantly reduce the deferred maintenance liabilities of the university units in its present format.

Conversely, the LRBP bonded program has traditionally been used for new buildings or major renovations of existing facilities or systems. At present, maintenance projects and new construction compete with one another in terms of both priority and funding utilization. We noted for the 2001 biennium the legislature authorized \$139.1 million in general obligation bonds, General Fund, State Special Revenue Funds, Federal Revenue Funds, and other funds for construction, building expansions, or major renovations. While some of this funding will reduce DM liabilities via building replacements and/or expansions, the bonded program has not generally been used for maintenance projects, but rather for new construction.

The legislature should consider whether the current LRBP is still working as intended. Originally conceived to provide maintenance funds to protect state buildings, it appears the emphasis has switched from primarily a building maintenance program to a new building construction program. Possible options for increasing the emphasis on building maintenance as well as reducing the state DM liability include:

- < Increase funding for the cash portion of the LRBP.
- < Utilize the bonding program to reduce or prevent an increase in the deferred maintenance liabilities of state buildings.

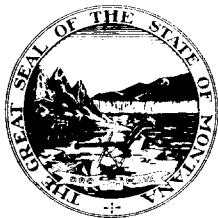
While the current LRBP provides a dedicated source of funding for new construction and some maintenance projects, our findings suggest an increased and consistent funding stream will be necessary to fully address identified DM liabilities.

Chapter V - Recommendations

Recommendation #2

We recommend the legislature examine the LRBP and establish an increased and consistent funding source to address deferred maintenance liabilities.

Agency Response



**MONTANA UNIVERSITY SYSTEM
OFFICE OF COMMISSIONER OF HIGHER EDUCATION**

2500 BROADWAY ♦ PO BOX 203101 ♦ HELENA, MONTANA 59620-3101 ♦ (406)444-6570 ♦ FAX (406)444-1469

November 3, 2000

Mr. Scott Seacat
Legislative Auditor
P.O. Box 201705
616 Helena Ave.
Helena, MT 59620-1705

Dear Mr. Seacat:

The final report on the audit of the Montana University System Facility Management Operations contains two recommendations. The first recommendation is directed to the Board of Regents and the second recommendation is directed to the Montana Legislature. Because the Board of Regents has not met since the draft report was issued, they have not had a chance to review and act upon the first recommendation. I will notify the Legislative Auditor and the Legislative Audit Committee should subsequent action by the Board of Regents modify the response to the first recommendation.

Recommendation #1

We recommend the Board of Regents establish a comprehensive facilities funding plan for the Montana University System which includes:

- A. Comprehensive FCI processes which are consistent and coordinated throughout the system to ensure accurate and complete information.
- B. Requirements for Facilities Management budget and LRBP requests to incorporate FCI information as part of prioritization.
- C. Requirements for ensuring facilities management reporting procedures allow for unit-to-unit comparisons and system-wide measurements of DM reduction strategies and efforts.

Response

Concur.

Explanation/Action

During the past several years the Board of Regents has increased emphasis on facilities management and deferred maintenance. The MUS has expanded the use of FCI to all campuses, operation and maintenance has been selected as a budget category for which campuses must establish expenditure targets and report periodically, the 2000 LRBP request for the MUS emphasized deferred maintenance as the top 16 priorities all involved deferred maintenance projects and the 17th priority was funding for facility master planning. While these efforts have given the campuses a good basis upon which to assess facility needs, the process could and should be refined to ensure comparable, complete and more accurate information. It is important to note however, that while further refinement may help to more accurately define campus needs,

the benefits will be negligible unless additional funding is available to address deferred maintenance for campuses facilities. Because of already scarce resources, actions taken by the MUS relative to this recommendation must be made with current personnel and resources.

Specifically, campus facility directors and OCHE staff will coordinate and develop standards and procedures that provide more consistency in the FCI process across all campuses. This information will be incorporated into the LRBP process for the 2002 legislative LRBP request. Campus facility, budget and OCHE staff will review accounting and reporting procedures to enhance the value of unit-to-unit comparisons and measurements of DM efforts for implementation beginning next fiscal year.

Recommendation #2

We recommend the legislature examine the LRBP and establish an increased and consistent funding source to address deferred maintenance liabilities.

Response

The MUS will support this recommendation during the 2001 Legislative Session.

Explanation/Action

The MUS agrees that the cash portion of the LRBP needs to be expanded. Unfortunately, because of declining available revenues, just the opposite is occurring. Preliminary estimates indicate that the 2002-2003 biennium cash program will be slightly more than half of the amount available during the current biennium.

The MUS would like to thank the Legislative Audit Division for their efforts regarding the University Facilities Management Audit. It is our hope that this audit will provide an impetus for positive change regarding funding for maintaining and protecting state buildings on campuses of the MUS.

Sincerely,



Rod Sundsted
Associate Commissioner for Fiscal Affairs

C: Tom Stump
Rosi Keller